

## EDUCATION

# Slowing Down

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THE report of the Ministry of Human Resource Development, Department of Education, for the financial year 1989-90 already looks dated because the year 1990-91 has proved so fretful for educational policy. The degree to which the V P Singh government was able to arouse a sense of indifference to education must be a record—which is quite something to say considering that the Indian state has never been known for its anguish over education. The initial unconcern expressed by Singh by not appointing a minister for education was later compensated by the appointment of a committee to review the 1986 education policy; but like many other steps taken by Singh in his brief spell as prime minister, this too had a quixotic flavour to it. Headed by a Gandhian, this committee must be the first to set up since independence with an official representative of an RSS-affiliated organisation given the status of a member. To view this gesture merely as part of Singh's political compulsions is to miss the vital fact that the BJP-RSS combine's massive schooling industry has achieved both popular and official sanction without a word being mentioned by anyone to acknowledge this. Another distinctive feature of the Ramamurty committee was the absence in it of even a token professional from school education (unless one concedes that school education was safely represented by the RSS). To balance this observation, one must record that this 17-member committee had as many as nine active or retired vice-chancellors. It is a pity that the perspective paper born out of the deliberations of this committee did not get much attention because its timing clashed with the anti-Mandal disturbances. Sadder for Ramamurty and his colleagues is the fact that V P Singh could not hold on to power long enough to permit the final report to be submitted.

Whether or not the new government will be able to pay attention to the Ramamurty report is important mainly inasmuch as it may determine the contexts in which the government would like to stick to the intentions expressed in the 1986 policy. Already about five years have

passed, and the 1986 policy was not an exercise in long vision. One of the promises made in the programme of action drawn up to implement the policy was to give statutory status to the National Council of Teacher Education. This could be a modest step towards bringing about some sense of professional norms in the training of school teachers, but the scheme will predictably hurt the interests of politicians who provide patronage to or directly run private training institutions. Also, the step would not be consistent with the approach suggested by the Ramamurty committee to sideline the demands of professionalism in school education. The bill giving the NCTE a statutory status has been more or less ready for some time; but there is no certainty whether it will be presented to the parliament. Another promise made in the 1986 policy was to develop a National Testing Service. The 1989-90 report does not give the reader much hope when it says that the NTS 'is being set up as a registered society' and that it will become operational 'after the finalisation of the Memorandum of Association and Rules'. Obviously, not much progress has been made on this key concern of the 1986 policy.

In fact, the report shows that what little energy had gathered in the bureaucratic machinery of education in the wake of the 1986 policy had run out by the year 1989-90. Slowing down occurred on many fronts, even on the ones on which a substantial start had been made. The reasons are not difficult to identify. The political uncertainty that loomed over the Rajiv Gandhi government in the final year of its term, combined with the financial cutbacks imposed on the education system, suffices to explain why the customary gloom of education became deeper in 1989-90. Nothing projects this impression more strongly than the figures of financial assistance given to the States under Centrally Sponsored Schemes approved under the 1986 policy. Except for one major scheme, in all others the assistance declined, most substantially in schemes concerning non-formal educa-

tion and vocationalisation programmes. The exception was the scheme of Navodaya Vidyalayas. Under this scheme the Central government has spent some Rs 80 crore since 1987, Rs 36 crore in the last financial year alone. There are now some 261 NVs in the country, and according to the official statement given in the recent session of the parliament the government is spending about Rs 9,000 per capita annually on the beneficiaries of this scheme.

There was a steep decline in the year covered by the report in the number of schools covered under the scheme to vocationalise secondary education, and also in the number of vocational courses approved for instruction. Even in the prestigious Operation Blackboard, the report shows the effects of cutbacks, resulting in a slowing down of the coverage rate. The report says that the target was to cover all blocks or municipal areas in the country in a phased manner—20 per cent in 1987-88, 30 per cent in 1988-89, and 50 per cent in 1989-90. The actual progress of the coverage provided under OB was 21 per cent in 1987-88, 26 per cent in 1988-89, and only about 10 per cent in 1989-90. One of the major concerns of OB, namely, construction of school buildings, has hardly got off the ground, mainly because funds for this important mission were to be provided under the National Rural Employment Programme and the Rural Landless Employment Guarantee Programme, now known as the Jawahar Rozgar Yojana, rather than directly out of the education budget. The report makes a specific mention of the fact that 16 lakh elementary schools out of the total 6.6 lakh (including upper, primary or middle) are running in other than concrete structures. The majority of these hapless structures (including thatched huts, tents, and open spaces) are used to house primary schools.

Annual reports of the Ministry of Human Resource Development have always been uneven in the sense that the mode of reporting is not uniform in all the sections. This report, for example, goes into such fine details of expenditure in the sphere of school education, but higher education is presented without any details of this kind. One would like to know how much money has been spent on programmes like the Academic Staff Colleges and for the spread of computer technology in universities. Such information is perhaps treated as unnecessary. Whereas the chapters on elementary and secondary education provide 11 tables, the chapter on higher education and research

provides none. Indeed, the chapter on higher education is no more than a bland catalogue of official programmes. Even a basic item of information like the ratio between salary-related expenses and the expenses incurred on academic activities and development cannot be obtained from this report. Those responsible for preparing this chapter owe an explanation to the public why the usability of the data assembled and published at a substantial expense should be targeted to be so low.

The chapter on adult education reports the progress made under the National Literacy Mission which was launched in 1988. As is now customary, information is provided about the number of illiterates enrolled, the number of instructors and agencies involved, and the expenditure incurred, but no data are given to indicate the number of illiterate adults who became literate as a result of the adult

education programme. Apparently, the programme has either ignored the task of maintaining records of individual participants, or perhaps the success record is too poor to be maintained and revealed. An interesting development in adult education is the plan to involve college and university students. The report mentions that the National Literacy Mission has assigned to universities and colleges the task of 'covering' 5 lakh people in 1988-89 and 6 lakh in 1989-90. What precisely is meant by this 'coverage' is anybody's guess. Among the 'highlights' of college students' involvement in literacy work, the report mentions "students from well to-do families working amongst, slum-dwellers' and 'students volunteering to learn the language spoken by the learner if the latter joined the literacy programme'. How touching bourgeois generosity can be!

lity of its foundations alone. The fear is that the water of the reservoir could seep through the fissures and cracks, in the rock under or around the dam and, being under very high pressure, it would quickly turn these rocks to mud and wash the dam away. This is exactly what happened to the Teton Dam and may well happen to the SSP.

#### GROUTING: TETON DAM AND SSP

To avoid this eventuality, a major concern in dam design is to ensure that this pressure-seepage around the dam does not occur. This is usually ensured by 'grouting', a commonly used dam-building technique, which involves injecting liquid concrete under high pressure into drill holes in the abutments and the foundation rocks. The concrete moves like water, filling all the fissures, shear zones and holes, and then hardens, leaving a supposedly impervious barrier against the seepage. 'Supposedly' because there is no way of checking whether the grout has done its job adequately, deep within the invisible heart of the rock. Grouting is especially unreliable if the rock is so hopelessly fissured that it takes in grout far in excess of what was anticipated. This is exactly the warning the above geological reports convey.

The standard way to test the fractiousness of the rock is to drill several deep test holes and to shoot water into them at high pressure. The rate at which the hole takes in the water is directly related to the number and size of the fissures in the rock. The tests conducted by the US Bureau of Reclamation, the agency responsible for constructing the Teton dam, revealed that "three deep holes drilled into the right canyon wall encountered cracks capable of transmitting water in excess of 440 gallons per minute".

K N Das and S N Pandey, regarding the Navagam site of the SSP, state that "heavy water loss during pressure tests reveal the unsoundness of the rock" (NWDT, Vol II).

On the basis of available studies, including the water pressure tests, the Geological Survey of India expressed grave concern and recommended that Gujarat carry out experiments to prove the groutability of the site. The fact that it gave 'conditional' approval to the site testifies to the enormous political pressures this project has seen, as also to the utter spinelessness of the bureaucracy. It is no secret that Gujarat was keen on the Navagam site mainly because its high abutments allowed it to demand the highest possible dam from the tribunal. It may also be recalled that both the Planning Commission and the Ministry of Environment and Forests gave 'condi-

## A Tale of Two Dams Spectre Haunting Bharuch

Arul Menezes

*If the Sardar Sarovar dam is indeed built at Navagam, all other aspects of the dam's terrible social and ecological price aside, we may well see the day when the district and city of Bharuch may simply cease to exist—as happened with the remote town of Wilford in Idaho, USA.*

ON June 5, 1976, the 95-metre high Teton Dam in Idaho, the US, collapsed wiping out the town of Wilford, killing eleven people, and causing two billion dollars worth of damage in a sparsely populated area in the north west of the country.

The catastrophe occurred as the newly built dam was being filled for the first time. On June 3, a small leak was noticed in the canyon wall about half a kilometre downstream from the dam. The next day, there were three leaks, which increased in volume through the day. On the morning of the 5th, a large muddy jet of water emerged from the mountainside at the point where it met the dam. Half an hour later, water was gushing out of the dam itself. Despite frantic efforts to plug the leak, at 11.55 a.m. the dam broke. A brown flood of two million cubic feet/second of water roared down the canyon. When it had passed, the town of Wilford had vanished, four thousand houses had been destroyed, and tens of thousands of acres of farmland had been reduced to bedrock, incapable of growing anything at all, ever again. It is estimated that, had the tragedy occurred during the night, tens of thousands of people, having no warning, would have perished.

The customary post-disaster investiga-

tions revealed a number of sordid facts. One of the most damning revelations was from a report of the Geological Survey regarding the dam-site. It reads:

...the buttresses for the dam are cut by many block faults the extents of which are not known. There are unusually large fissures in the right canyon wall which cannot be sealed by grouting.

And here is another statement, this time about a different project, still being built, in a different land:

..Due to numerous openings in joints and shear zones, which grouting cannot seal, the foundation cannot be made water-tight. Moreover, the extent of the cavernous openings in the Bagh formations is not known.

This statement is taken from a Madhya Pradesh government report, objecting to the site of the Sardar dam, and is based on surveys taken for the Narmada Water Disputes Tribunal 1979 (NWDT, Vol II). The 137-metre dam of the Sardar Sarovar Project (SSP) is currently under construction at Navagam, upstream of the densely populated and fertile lands of the Baroda and Bharuch districts of Gujarat,

The comparisons are striking. The geological facts suggest that, quite apart from fears of earthquake damage, the dam may well collapse due to the instabi-